Notice of Allowability	Application No.	Applicant(s)	
	10/762,295	SAWADA, KENICHI	
	Examiner	Art Unit	
	Sherali Ishrat	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.

2. ☒ The allowed claim(s) is/are *21-25 (renumbered as 1-5)*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. *09/484,540* .
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

 * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

 Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 1/23/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *12/11/06* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

ISHRAT SHERALI
PRIMARY EXAMINER

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

IN THE SPECIFICATION:

Page 2, line 3, after "2000" insert -- now U.S Patent number 7,003,152--.

IN THE CLAIMS:

Cancel claims 1-20 and 26-34.

21. (original) An image processing apparatus for processing image data indicating a density of each pixel of an image, the apparatus comprising"

an edge detecting portion for detecting an edge area in the image in accordance with the image data;

an edge enlarging portion for enlarging the edge area detected by the edge detecting portion;

a density correcting portion for increasing or decreasing the density of the image data of the edge area enlarged by the edge enlarging portion; and

a detecting portion for detecting a monochrome and color ratio of the image data, wherein the edge enlarging portion changes the enlarging degree in accordance with the

detected result of the detecting portion.

22. (original) The image processing apparatus according to claim 21, wherein the edge detecting portion includes a first order differential filter for operating the first order differential of the image data so as to determine the edge area whose first order differential is larger than a predetermined value.

23. (original) The image processing apparatus according to claim 21, wherein the image data includes a black component and color components, and the density correcting portion increases a density of the black component and decreases the densities of the color components.

24. (original) The image processing apparatus according to claim 21, wherein the edge enlarging portion enlarges the edge area inside the image but does not enlarge outside the image.

25. (original) The image processing apparatus according to claim 24, wherein the edge enlarging portion decides the inside and the outside of the image in accordance with the lightness component of the image data.

Reasons for Allowance

2. The following is statement of reasons for allowance of claims 21-25:

The present invention is an image processing apparatus for processing image data indicating a density of each pixel of an image. Independent claim

21 identifies distinct limitation "a detecting portion for detecting monochrome and color ratio of image data, wherein the edge enlarging portion changes the enlarging degree in accordance with the detected result of the detecting portion. The closest prior art to Katayama et al. (U.S 5,361,147) and Tanaka et al. (US 5,548,415) show detecting edge, enlarging the edge area and correcting density of edge area but fail to anticipate or render the above limitation obvious when taken singularly or combination.

Communication

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherali Ishrat whose telephone number is 571-272-7398. The examiner can normally be reached on 8:00 AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ishrat Sherali

December 05, 2006

ISHRAT SHERALI
PRIMARY EXAMINER